

# Communicable Disease

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# Communicable Disease Program Overview

- Required program (Illinois Title 77 Section 600) for Certified Health Department
- Surveillance and investigation of mandated reportable diseases
- Identify and manage outbreaks
- Educate the public and healthcare providers
- Testing and treatment for select diseases

# Collaboration

- Other Health Department Divisions
- Local Health Care Providers and Laboratories
- Long Term Care Facilities
- Schools and Day Care Facilities
- Restaurants
- PADs and other Social Service Agencies
- Neighboring Local Health Departments
- Illinois Department of Public Health

# Education

- Professional conferences (offer CMEs and CEUs)
- Blast E-mails and website
- Education programs to schools, health care, and community organizations (Hand washing, Immunizations, STD, Rabies)
- Publish Communiqué, directed towards healthcare providers

# Outbreaks

**Defined as a larger amount of a disease than normally expected, either in the county as a whole or in a specific location or group of people**

- ▶ Depending on the disease, an outbreak could be as small as one person or as many as dozens of people
- ▶ Outbreaks may be investigated with assistance from Environmental Division or local Health Care Providers

# Outbreak Categories

## **Foodborne**

- Salmonella, E-Coli, Shigella, Tuberculosis

## **Waterborne**

- Cryptosporidia, E-Coli, Shigella

## **Non Foodborne/Waterborne**

- Measles, HIV, Histoplasmosis, Tuberculosis

# Outbreaks

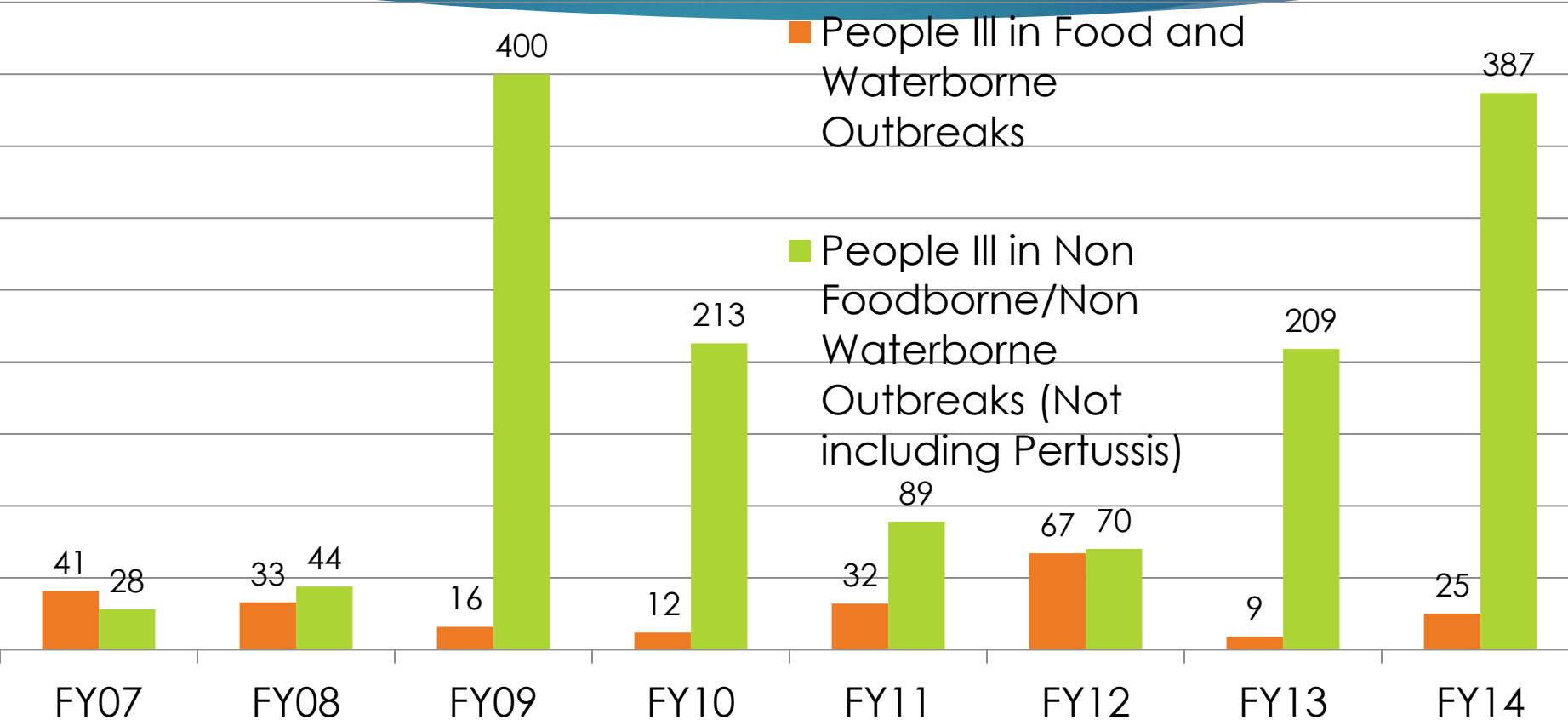
- ▶ Identified by reports of illness, complaints, and/or surveillance
- ▶ Unknown Pathogen (**Goal is to identify**)
  - ▶ Interview “ills’ and “wells”
  - ▶ Work in cooperation with Epidemiologist, Environmental Health, Healthcare providers
  - ▶ Coordinate specimen collection

# Outbreaks, continued

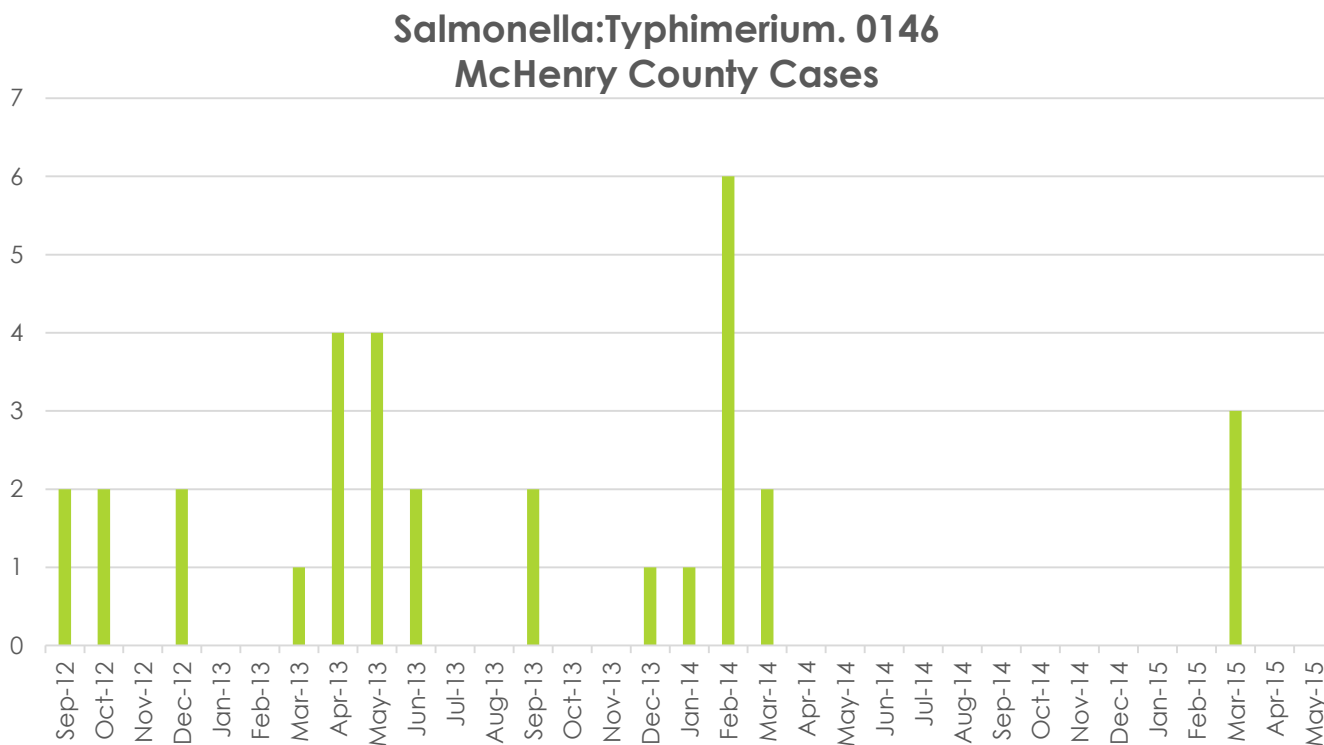
- ▶ Known Pathogen (**Goal is to control/eliminate transmission**)
  - ▶ Work with healthcare provider to provide recommended treatment and prophylaxis to cases and contacts
  - ▶ Work with Environmental Division to eliminate any identified source
  - ▶ Educate public to protect and prevent further transmission



# Individuals Ill in Outbreaks by Year



# Salmonella:Typhimerium.0146 Illinois Outbreak IL2013-094



# Ebola

- ▶ Current Ebola outbreak in western Africa is the largest in history
- ▶ Communicable Disease program has worked with Emergency Response and other agencies such as EMA and State's Attorney to prepare
- ▶ CD has monitored one traveler for 21 days

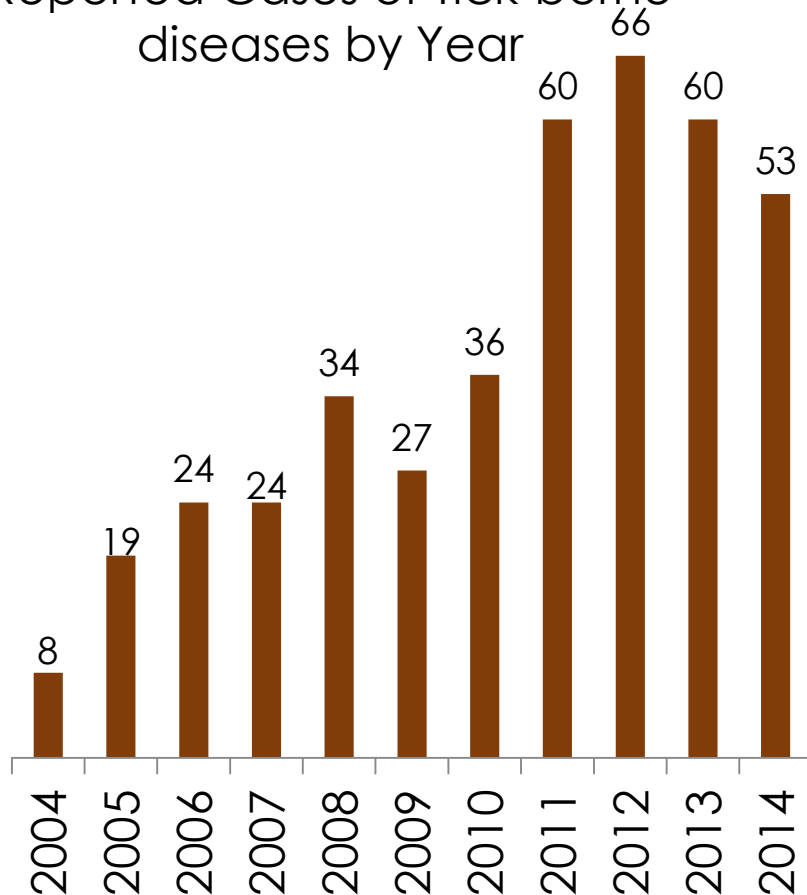
# Tick-Borne Disease

- ▶ Between 2004-2014 there were **411** reported cases of tick-borne diseases of which the majority, **384** were Lyme disease
- ▶ Rocky Mountain Spotted Fever, a potentially deadly tick-borne disease, is also found in McHenry County
- ▶ Educate public on prevention methods and signs and symptoms

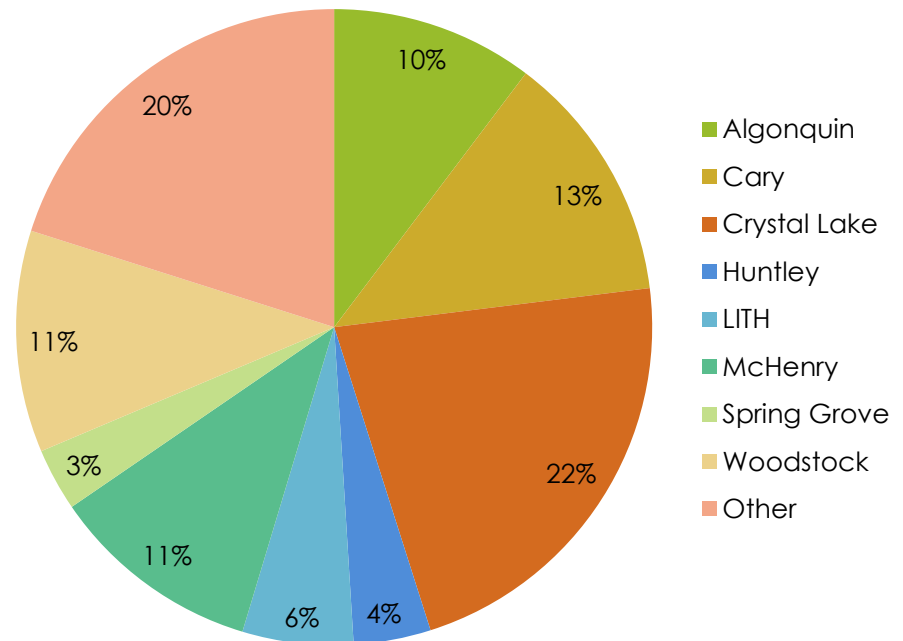
# Tick-Borne Diseases by Year and City of Residence

13

Reported Cases of Tick-borne diseases by Year



Reported Cases of Tick-borne Disease by City of Residence 2004-2014



The ticks circled in blue are those responsible for transmitting Lyme disease.

If a deer tick has bitten you, consult a health care provider or call MCDH for more information about tick-borne illnesses.

**MCDH**

McHenry County Department of Health  
815-334-4500

## Tick Identification

Dog Tick



Deer Tick



Lone Star Tick



Female

Male

Nymph

Larvae



Erythema Migrans, a distinctive rash, is often one of the first signs of Lyme disease

# Rabies

- ▶ All mammals are potential carriers for rabies, but in McHenry county the primary carrier are bats
- ▶ Communicable Disease and Veterinary Public Health provide education and consultation
- ▶ If exposed it is important to be treated **ASAP!**





The Bat Cave is operated by the Communicable Disease and Environmental Health Programs and provides education on bat safety to children, seen here at the 2011 Children's Health Fair

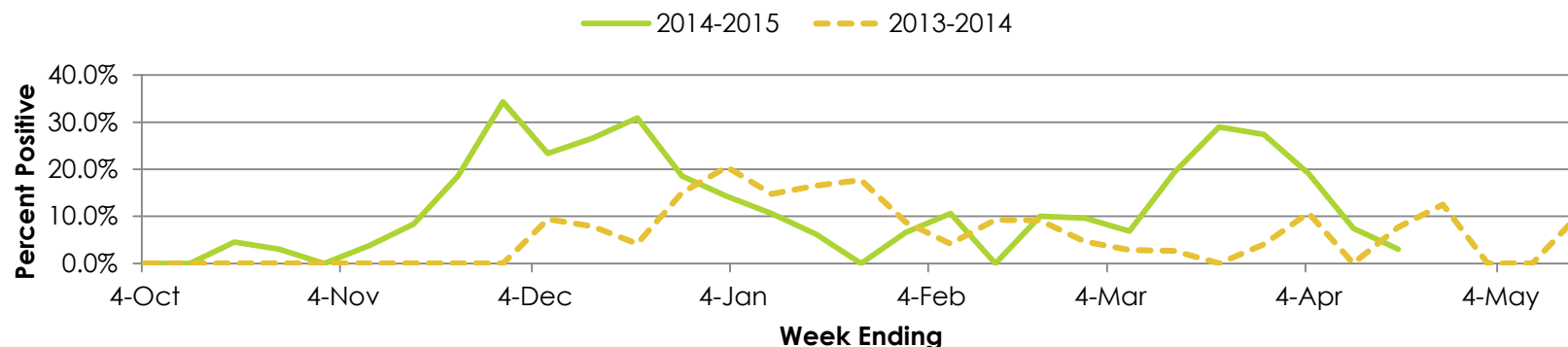


# Influenza Surveillance

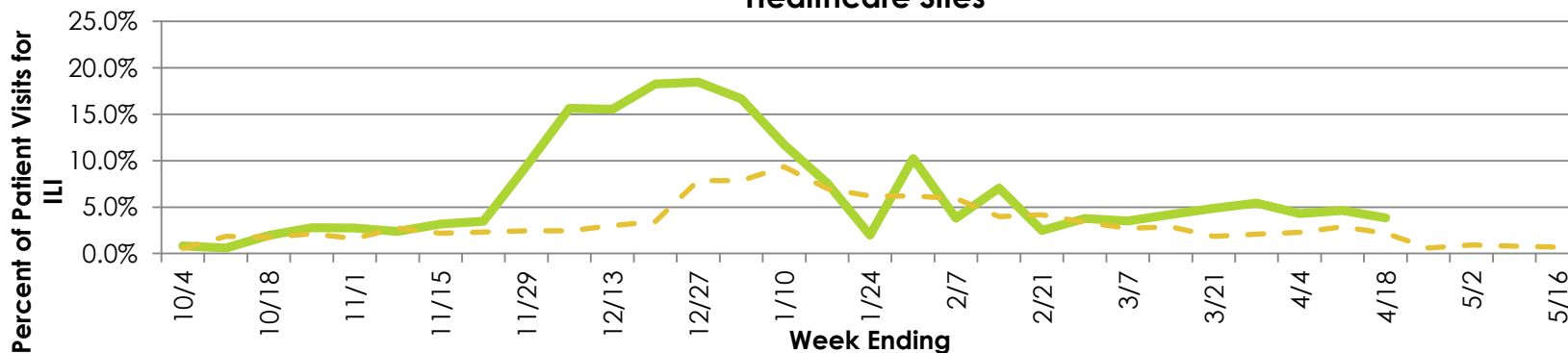
- ▶ The severity of the flu season is monitored through reporting at the Emergency Rooms of three sentinel hospitals
- ▶ Schools also report total absences and Influenza Like Illness or ILI absences
- ▶ This surveillance is reported weekly on the Health Department website at [MCDH.info](http://MCDH.info)
- ▶ MCDH also monitors Influenza deaths and ICU admissions

# Influenza Season 2012-2013 and 2011-2012

**Figure 1a. Percent of Rapid Influenza Tests that are Positive at McHenry County Sentinel HealthCare Sites**



**Figure 1b. Percent of Patient Visits for Influenza-Like Illness at McHenry County Sentinel Healthcare Sites**



# Pertussis

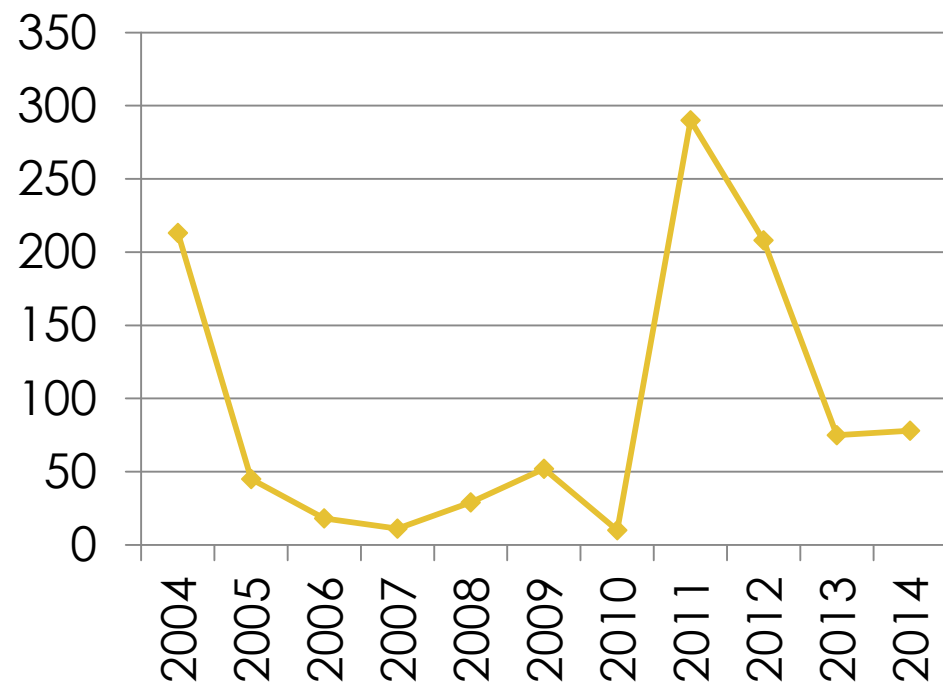
- ▶ Pertussis is a vaccine preventable disease
- ▶ Vaccine reduces the risk of being infected and the severity
- ▶ Number of Pertussis cases varies from year to year and usually peaks every five years
- ▶ Pertussis mainly effects children and teens

## Percent of Reported Pertussis cases in McHenry County 2004-2014 by Age Group

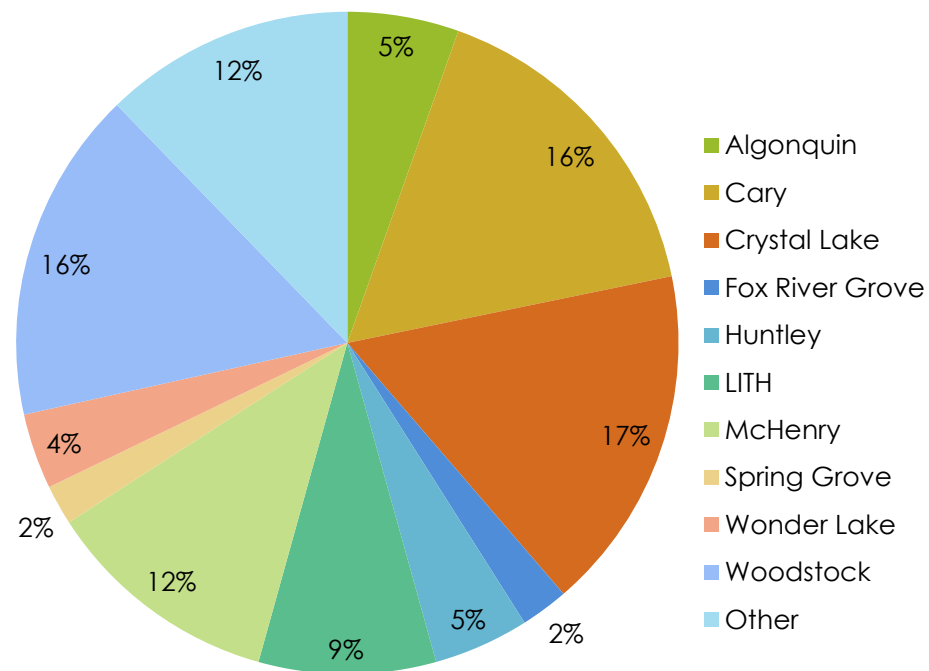
Age Group	6 and under	7 to 12	13 to 18	19 and older
Percent of Reported Pertussis Cases	28.23%	32.16%	22.85%	16.75%

# Pertussis

## Reported Pertussis Cases



## Reported Pertussis Cases 2004-2014 by City of Residence

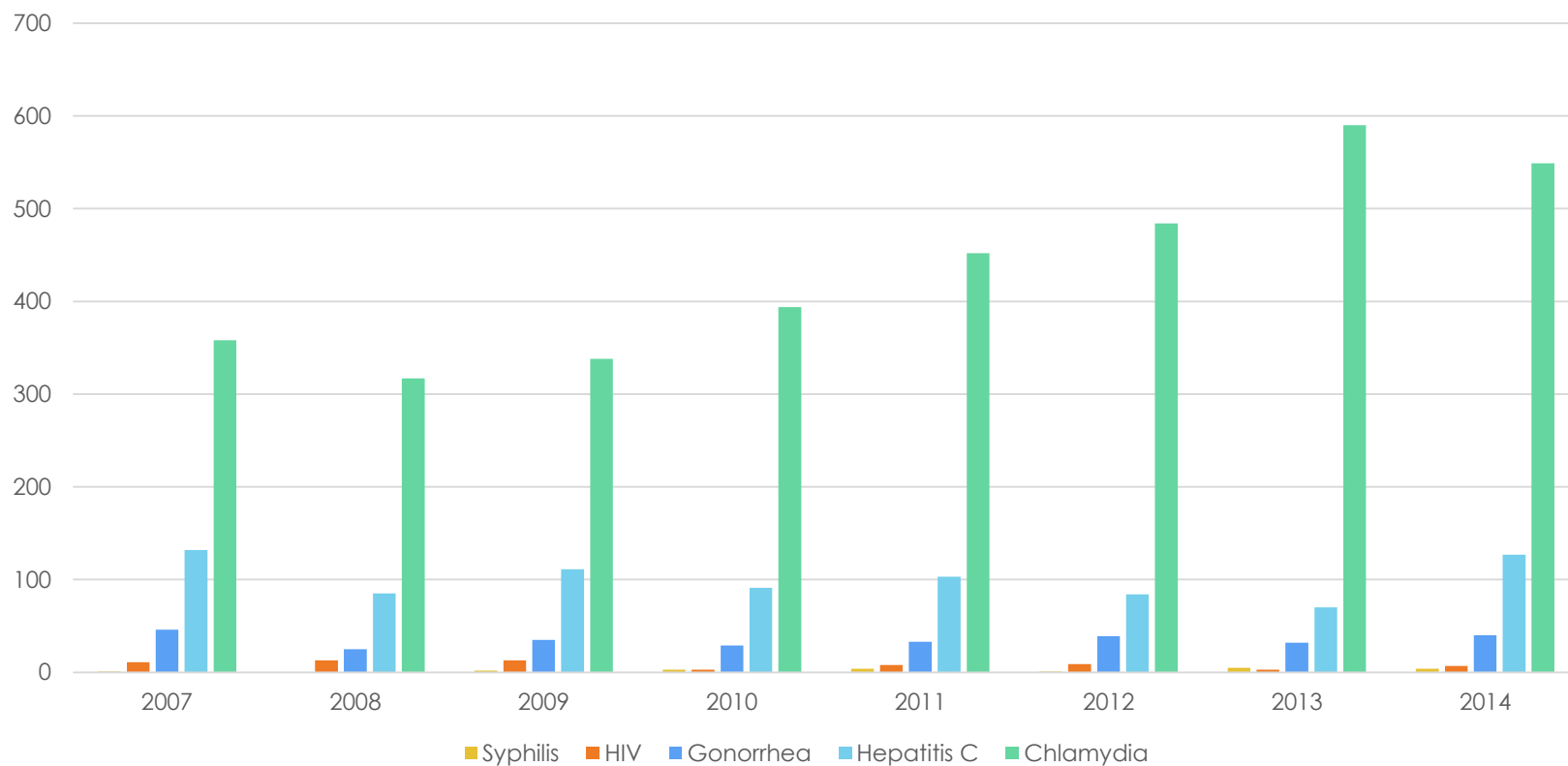


# Human Immunodeficiency Virus (HIV) and Sexually Transmitted Diseases (STD)

21

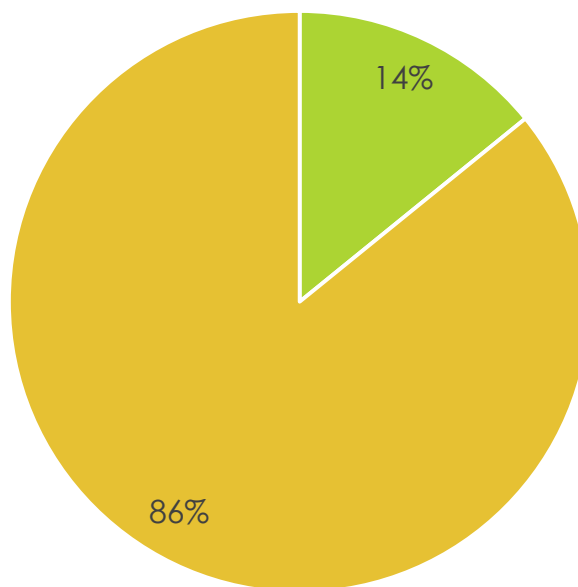
- ▶ Testing and counseling for HIV and STD including partner testing and treatment
- ▶ Testing is confidential and provided at low or no cost
- ▶ Only STD clinic in McHenry County and only McHenry County organization with STD information on the internet

# STD Diagnosis by Year



# Hepatitis C

Hepatitis C Diagnosis by age Group 2012-April 24<sup>th</sup>, 2015



■ Under 35 ■ 35 and Older

# Tuberculosis (TB)

- ▶ Program completely funded by tax levy
- ▶ Clinics for screening held at Building B and outreach screening provided at PADs shelters.
- ▶ MD Clinic for diagnosis and treatment follow up of latent and active TB cases of any McHenry County resident or anyone employed in McHenry County
- ▶ Directly Observed Treatment (DOT) provided to all active TB cases.
- ▶ Contact screenings for all active TB cases and treatment for any identified latent or active contacts.



# Questions?